

XXXVII.—Notes on the Lepidoptera of St. Helena, with Descriptions of new Species. By Mrs. T. VERNON WOL-
LASTON.

[Continued from p. 233.]

Fam. III. Deltoidæ.

Genus 16. HYPENODES, Guén.

Hypenodes costæstrigalis, Steph.

It is curious that the only example which we obtained of this little Deltoid in the island should happen to be such a remarkably dark variety. It was on the loftiest portion of the central ridge that we captured it, where it was adhering to the underside of a large and rotten block of cabbage-tree wood which was lying on the damp grass; although we frequently visited the same spot and made the most careful research, we were unable to obtain even a second specimen. At first sight it looks extremely like a member of the Phycidæ; indeed I concluded that it actually was one until Mr. Barrett recognized it as undoubtedly *Hypenodes costæstrigalis*.

Genus 17. HERMINIA, Latr.

Herminia rectalis, Eversm.

This somewhat dingy-looking little moth (which occurs also in Casan and Orenburg) does not appear to be common at St. Helena. At any rate I obtained only two examples of it, and these at intermediate altitudes; but, as they were both of them found shortly before we left the island, it is not unlikely that our visit was not at the season when the moth is most plentiful.

Fam. IV. Geometridæ.

Genus 18. ACIDALIA, Treits.

Acidalia separata.

Acidalia separata, Walk., in Melliss's Saint Hel. 186 (1875).

This and the following *Acidalia* I have endeavoured to identify as well as I can from Mr. Walker's descriptions. I cannot but feel, however, that the result is not altogether satisfactory, inasmuch as I have no knowledge of either of them in their earlier stages; and I am inclined to suspect (at any rate until the contrary has been proved from an observation of the larvæ) that they are probably but varieties of a single variable form. More particularly am I inclined to this view since Mr. Walker had evidently not seen a male of his *A. separata*.

Even amongst the comparatively few specimens which I possess, hardly any two are exactly similar. Some, for instance, are without the confluent postmedian lines, having only a very faint single one; others, again, have them very large and conspicuous and forming almost a band; whilst in others the ground-colour is quite white and not irrorated with dusky scales.

Acidalia atlantica.

Acidalia atlantica, Walk., in Melliss's Saint Hel. 187 (1875).

This pretty little Geometer is not uncommon in St. Helena, both at low and intermediate elevations, more especially perhaps the former, where it attracts the eye as a very pretty object, resting, with its wings horizontally expanded, on the rough stone walls which fringe the outskirts of the unprofitable tracts of the prickly pear (*Opuntia vulgaris*, Mill.) above Jamestown.

GENUS 19. STERRHA, Hübn.

Sterrha sacraria, Linn.

This extremely pretty and widely distributed Geometer is not uncommon in the intermediate districts of St. Helena; but I did not observe it so high as the central ridge. Indeed even Plantation is rather above its normal range, though during our residence there I obtained it sparingly. But about Woodcot, which is distinctly lower, it was quite abundant (particularly on open grassy slopes); and at Cleugh's Plain it was even commoner still. It therefore evidently prefers hot and sunny spots rather below what I have usually cited as strictly intermediate. My specimens are of a light pale delicate hue, and do not present that variety of colouring which characterizes this species in more northern climes, and which has been considered by some writers to be partly owing to this delicate tropical species adapting itself to a colder climate, when it has been observed that their texture is denser and their general form more robust. It occurs in Madeira and the Canary Islands, as also in Asia Minor, Cyprus, Syria, throughout Africa, and India; and specimens of it are constantly recorded as being found in the British Isles; indeed each year it seems to be becoming more plentiful.

Fam. V. Pyralidæ.

Genus 20. PYRALIS, Linn.

Pyralis farinalis, Linn.

The common European *P. farinalis* has completely esta-

blished itself at St. Helena, as, indeed, it seems to have done in most countries of the civilized world, its meal-infesting habits rendering it extremely liable to accidental transportation through indirect human agencies. As elsewhere, it more particularly abounds in old unused outhouses and barns, as well as about stables; and under such circumstances I met with it very commonly at Plantation.

Pyralis helenensis, E. Woll.

Expanse 11 lines. With the fore wings of a dull pale speckled griseous brown, and having two transverse brownish lines, the first one of which is antemedian, and the second one postmedian. Between these two lines the surface is rather darker (especially towards the costa) and with the discoidal spot almost undistinguishable. There is a small yellowish inconspicuous spot, or blotch, on the costa adjoining the exterior side of the postmedian line. Hind wings very pale cinereous, minutely speckled with black scales, and having two undulating darker lines, which are united near the inner margin. Thorax and body concolorous with the anterior wings.

The maxillary palpi are slightly longer and more conspicuous than in *P. farinalis*; the wings also, though smaller, are comparatively rather broader.

As this very ordinary-looking little moth is not mentioned by Mr. Melliss as occurring in the island, and I only met with one example, I think it must be a somewhat rare species. I was inclined at first to regard it as merely a geographical variety of our British *P. glaucinalis*; however, as far better judges have pronounced it to be a distinct and hitherto apparently unknown species, I have accordingly named it *helenensis*. Nevertheless I think it is but fair to add that the only example of it that we met with was captured under somewhat suspicious circumstances—namely, in the kitchen-garden at Plantation, amongst the various introduced European vegetation, where one would not naturally have expected to find the unique specimen of a species which was truly indigenous; especially is this the case when the peculiarly local character of most of the native St.-Helena Lepidoptera is taken into account. Indeed (as I shall have occasion to allude to further on) many species are so *ultra*-local, that although abundant enough in their exact *habitat*, yet a few feet away there is absolutely no trace of them whatever to be seen.

Pyralis helenensis differs mainly from *P. glaucinalis* in having the upper wings broader and slightly more rounded at the apex; and the undulating darker lines of the under wing are more transversely placed, as well as united near the inner

margin. The texture, too, of the wings appears in the present species to be thicker and more robust, or of a less delicate and shiny substance, than in *P. glaucinalis*.

Genus 21. HYMENIA, Hübn.

Hymenia recurvalis, Fab.

There is probably no Lepidopterous insect in St. Helena (excepting, perhaps, the common *Scoparia nigritalis*) which is so abundant as the present one. Nevertheless it seems to be confined to the low and intermediate districts; or, at any rate, I did not observe it above the altitude of Plantation. At Plantation, however, and at Cleugh's Plain it swarms; and it was likewise in the utmost profusion about Jamestown, particularly in the Botanic Gardens and towards Maldivia. It flies by day, and is especially fond of the *Solanum nigrum*, Linn., or nightshade, over the low shrubby plants of which it may be seen to hover in multitudes. Unfortunately, however, I did not meet with it in either its larva or chrysalis state.

H. recurvalis occurs also at Ascension; and it is a species of a wide geographical range, being recorded from Western Africa, India, China, New Zealand, and South America.

Genus 22. PHAKELLURA, L. Guild.

Phakellura indica, Saund.

This exceedingly pretty moth (so well distinguished by its transparent silken-white wings) would appear, as far as my own experience is concerned, to be decidedly scarce; for I met with but a single example of it during our sojourn in the island, and that one at Plantation. I was assured, however, that it was not uncommon at the Briars; so that, perhaps, it prefers a lower altitude than where we were principally located.

Phakellura indica was described by W. W. Saunders, Esq., in the 'Transactions of the Entomological Society' (new series), vol. i. p. 163, in a paper enumerating some insects which are injurious to the cotton-plant. He says that it is very nearly allied to *Pyralis hyalinata*, Linn., Poey, Cent. Lep. Cuba, pl. 19 (which belongs to the genus *Eudiptes*, Hübn.); but it differs from it in the somewhat smaller size, broader band round the wings, also in the nature of the chrysalis-case; and up to that date (1850-51) he says that *P. indica* had been found only in the East Indies, while the species described by Poey seemed to be as exclusively limited to the New World, and is found in Cuba, Jamaica, Brazil, and Honduras. A

third closely allied, but distinct species, he adds, is found on the west coast of Africa.

As Mr. Walker has identified the above insect as *Phakellura indica*, I give it on his authority, not having had any opportunity myself of examining the allied forms; still I think it might not be impossible that the St.-Helena species is the one referred to by Mr. Saunders as inhabiting the west coast of Africa. But, on the other hand, the island having been so long in the hands of the East-India Company might well account (as in many other cases) for the Indian form of *P. indica* having been introduced into St. Helena.

Genus 23. SCOPARIA, Haw.

Scoparia nigritalis.

Scoparia nigritalis, Walk., in Melliss's Saint Hel. 190 (1875).

This is without doubt the most abundant moth in St. Helena, and one which swarms to such an extent, especially throughout the intermediate districts, as to be absolutely a pest. It resides more particularly upon the trunks of the trees, from which it will often start, when disturbed, in such clouds as well nigh to confuse one with its numbers. So far as my own observations are concerned, it would appear to occur everywhere, though it is certainly far more abundant in places of about the altitude of Plantation than it is either higher or lower down. Nevertheless it clearly ascends to the great central ridge; and I also met with it commonly in the Botanic Gardens. Although a somewhat insignificant little species when merely glanced at superficially, it will nevertheless be seen, when examined beneath a Coddington lens, to be a most beautiful object, the "cinereous" scales with which it is more or less besprinkled or adorned shining, when highly magnified, with a metallic silvery lustre; whilst the ochreous tufts combine to give a more variegated appearance to the entire surface. It is very fond of flying into open windows at night when the candles are lighted; and I have frequently seen the panes of glass, when the windows were closed, literally covered with it. This was particularly the case at Plantation.

Scoparia similis, E. Woll.

Expanse 4-5 lines. With the fore wings of a smoky-greyish hue, the central portion of the disk being darker and having a somewhat band-like appearance. The base is dark brown, followed by a greyish space which exteriorly is bor-

dered with a narrow blackish line. The stigmata are more or less distinct and contain pale ochreous scales. There is an undulating greyish postmedian transverse line, which is very much pointed exteriorly a little before the middle. The outer margin is pale with a few black points. Hind wings whitish grey. Thorax brown; body concolorous with the posterior wings.

This pretty little moth is decidedly rather scarce in St. Helena; and although very like the former species, it is readily distinguished from it on account of its smaller size and narrower wings. I obtained it principally at Plantation, where it made its appearance much later than *S. nigritalis* (for the latter was equally abundant throughout the whole of our six months' residence there), and gradually became more abundant just as we were preparing to leave the island.

Though I felt sure of *S. similis* being a distinct species, yet I am glad to be able to add that Prof. Zeller accepted it at once as distinct from *S. nigritalis*, which in some respects it very much resembles.

Scoparia lucidalis.

Scoparia lucidalis, Walk., in Melliss's Saint Hel. 190 (1875).

Of the St.-Helena *Scopariæ* this is the most variegated and beautiful, its speckled black-and-white hue giving it quite a conspicuous appearance. This is peculiarly the case when seen adhering to the rocky and earthy banks at the sides of the roads in the direction of the central ridge, where its bright appearance at once separates it from the common species, with which it is usually associated. Although I met with it sparingly so low down as Plantation (attracted mostly to the lighted windows at night), it is on the less-elevated parts of the central ridge that *S. lucidalis* more particularly occurs, such as Cason's, High Peak, and West Lodge. In the last-mentioned locality it was on the blossoms of the rare *Aster gummiferus*, H. R. fil. (or "Little Bastard Gumwood") that it was chiefly found. Although comparatively rare, I occasionally observed it even on the very highest portion of the ridge, about Diana's Peak and Acteon.

Scoparia helenensis, E. Woll.

Expanse 8-9 lines. With the antennæ (which are very minutely pubescent in the male) subserrate and very much thickened about the middle, but tapering again towards the apex. The fore wings are of a suffused brownish hue, with a very slight ochreous tinge; at the base is a dark blotch con-

taining ochreous scales exteriorly; this dark blotch is followed by a pale ill-defined space, beyond which the orbicular reniform and claviform stigmata are distinct, though not conspicuous; the postmedian line is commenced on the costa as an ochreous blotch, after which it is continued very slenderly and indistinctly to the inner margin. Hind wings pale at the base, but gradually of a darker smoky hue towards the outer margin; the male with a faint submarginal line and discoidal streak. Thorax and body of a very pale brownish hue.

This is a somewhat scarcer *Scoparia* than the preceding one, and found more particularly (so far at least as my own experience would imply) on the loftiest parts of the great central heights, in the direction of Acteon and Diana's Peak. Nevertheless it extends, though less abundantly, along the whole length of the ridge, and I met with it likewise at Cason's and at West Lodge. Until I had found the male I was rather inclined to take it for the female of *S. lucidalis*, the habits of the two species being somewhat similar. However, now that both sexes are in my possession, I have no doubt as to its distinctness. *Scoparia lucidalis*, too, I observed was more abundant throughout those regions which are more particularly characterized by the Aster and the Gumwood flora, whereas the present species is far more plentiful in the more exclusively cabbage-tree districts.

Scoparia scintillulalis, E. Woll.

Expanse 7-9 lines. With the labial palpi very hairy or brush-like, especially in the female, and the maxillary palpi larger, resting more on the labial ones than is usually the case amongst the *Scoparie*. The fore wings in the male are of a dark bronzy hue, and very minutely and sparingly dusted about the middle with opal and pale ochreous scales; the usual letter-like marking (characteristic of most of the species belonging to this particular genus, and which more or less resembles a Greek χ) is merely represented by two extremely small and inconspicuous patches of ochreous scales having no distinct outline; the middle portion of the costa is pale yellow, between which and the apex is a slightly triangular yellowish patch, adjoined generally by a smaller opal one; parallel with the outer margin is an irregular line of small opal patches. Hind wings pale yellowish, the outer margin, however, being broadly bordered (gradually) with bronzy brown, along which *interiorly* is a narrow yellowish line (more or less apparent in different specimens). The female with the fore wings of a rich dark brown, and much more irrorated with opal (or bluish-white) scales throughout

the wing, and forming almost a broad central band; the letter-like markings, too, are more distinct in this sex than in the male. Hind wings bronzy brown, but having a slightly yellowish tinge towards the base. Thorax concolorous with the base of the anterior wings; body of a paler and duller hue.

This is one of the prettiest of the smaller moths of St. Helena, and so dissimilar in colour to the usual greyish tints which prevail amongst the hitherto known members of the *Scopariæ* that we were indeed surprised to hear from Mr. Stainton, who most kindly examined this and the following species, that they undoubtedly belong to the present genus. *S. scintillulalis* is particularly a species of the higher districts; for although it occurs as low down as Plantation, it becomes gradually more and more plentiful as we ascend the mountains, until about Diana's Peak and Acteon it is most abundant. In fact it may be said to occupy the regions which are characterized by the various cabbage trees; and not improbably therefore (after the habit of its allies) it may be attached to the lichen (*Leptogium tremelloides*, Fr.) which clings to the branches of those particular arborescent Compositæ.

There can be no fear of mistaking *Scoparia scintillulalis* for any other species—the rich dark brown but partially blackened colour of the upper wings, beautifully bespangled with small opaline or bluish-white scales (which, however, are more concentrated in a median band and a few conspicuous subapical specks, as well as in an undulating but broken-up apical line, than elsewhere), being more than enough to distinguish it. Although we met with it somewhat sparingly throughout the whole time of our sojourn in St. Helena, viz. from September to February, yet it did not become abundant until about December, and remained so up to the time of our departure from the island.

Scoparia transversalis, E. Woll.

Expanse 7–9 lines. With the antennæ subserrate, but not pubescent in the male. This species is very easily distinguished from either of the above on account of the upperside of the labial palpi, and the brush of the maxillary ones, as also the head and centre of the thorax, being of a conspicuously pale yellowish-white hue. The fore wings in the male are of a dark brown throughout, and with the letter-like marking more distinct than in *S. scintillulalis*; there is an exceedingly indistinct postmedian undulating line, which commences as a small yellowish patch on the costa, not far from the apex; between the black points and the outer

margin is a very narrow, faint, ochreous line. In the female the fore wings are of a slightly darker brown, with a conspicuous straight narrow transverse antemedian band of a whitish-yellow tint; the letter-like marking almost as distinct (though not so *raised*) as in the male. Hind wings smoky brown, rather paler and more transparent near to the base. Thorax with a broad, central, pale yellowish band; body rather darker than the posterior wings.

Like *S. scintillulalis*, the present species may be defined, essentially, as occupying the higher districts of the island, which are characterized by the presence of the various arborescent Compositæ known as the "cabbage trees;" and although it may be met with as low down as Oakbank and Plantation, it is not before we reach the great central ridge that it becomes absolutely abundant. In the vicinity, however, of Diana's Peak and Acteon, as well as along Stitch's Ridge and the Cabbage-tree road, it may be said to swarm, flying, when disturbed, out of the masses of fern and other vegetation which hang about the rocks almost everywhere; and I should say that there is scarcely a Lepidopterous insect in those elevated regions which is, on the whole, more common. It is very readily distinguished, at any rate the male—the dark, rich, brownish-black hue of the anterior wings, which is *mainly* relieved by a straight, transverse, yellowish antemedian band, in conjunction with the pale dorsal stripe of the same hue which extends throughout the centre of the thorax, rendering it easy to recognize.

Genus 24. HELLULA, Guén.

Hellula undalis, Fab.

Widely spread over the low and intermediate districts of the island; but I am not sure that I observed it so high as the central ridge; indeed I think that Plantation is about its upper limit, so far, at least, as my own experience is concerned. In the neighbourhood of Jamestown I do not recollect that it was very abundant, though I certainly met with it in the Botanic Gardens and at Maldivia; but at Cleugh's Plain it appeared to be common, and at Plantation tolerably so. It frequents open grassy places, as well as weedy spots about gardens and cultivated grounds, being soon aroused into flight in the daytime. In all probability it has been naturalized at St. Helena: at any rate it possesses a considerable geographical range; for it is not uncommon, I believe, in some parts of Europe, and I have taken the species abundantly in the less-elevated regions of Madeira.

Genus 25. BOTYS, Latr.

Botys abstrusalis.

Botys abstrusalis, Walk. Lep. Brit. Mus. xviii. 663 (1859); Melliss, Saint Hel. 189 (1875).

There are few moths more universal and abundant at St. Helena than the present one. Around Jamestown it swarms, and is scarcely less common at Plantation. It seems to have acquired for itself a wide geographical range, being quoted from Ceylon and China.

Botys creonalis.

Botys creonalis, Walk. Lep. Brit. Mus. xviii. 579 (1859); Melliss, Saint Hel. 189 (1875).

There are few moths more abundant at intermediate and lofty altitudes than this pretty little *Botys*. About Plantation it is extremely common, and becomes still more so as we approach the central heights, where it absolutely swarms about Stitch's Ridge, Diana's Peak, Acteon, and especially along the Cabbage-tree walk and at West Lodge. I generally captured it by beating the dense masses of vegetation (particularly ferns) which hung about the rocks; but, as I did not obtain the larva, it is difficult to conjecture to what plants it is more particularly attached. At any rate it has all the appearance of being indigenous to the island, though it is stated by Mr. Melliss to occur also at St. Domingo in the West Indies.

Botys ruficostalis, Led.

Botys adipodalis, Melliss, Saint Hel. 189 (1875), non Guén.

This pale and rather large *Botys* appears to be decidedly a local moth in St. Helena, and one which is confined, so far as my own experience is concerned, to the lower and warmer parts of what may be termed generally the "intermediate" districts. In fact the whole of my examples were obtained at Cleugh's Plain, which can scarcely be more, I should imagine, than about 1200 feet above the sea; but in that particular locality it is not at all uncommon; and being a slow flier and conspicuous, it is extremely easy to catch. Its larva seems to feed upon *Asclepias*, the leaves of which it spins loosely together, and changes into a chrysalis within; but our visits to Cleugh's Plain were, unfortunately, too late in the season to enable me to preserve more than the pupa and imago. Whether the species, however, is more than an introduced one into the island, is, I think, extremely doubtful, though, as it is recorded by Dr. Staudinger from Andalusia,

Italy, and Syria, in all probability it was originally naturalized.

The specimens of this moth from St. Helena recede from the examples of *Botys ædipodalis* which are in the British Museum in the much less acute tip of the fore wings, in their much paler colour, and also in having no dark hind-marginal border. Professor Zeller, who has kindly examined one of my St.-Helena specimens, remarks that it exactly agrees with his *Botys ruficostalis* from Palestine.

Genus 26. MEYNA, Hübn.

Meyna polygonalis, Hübn.

Meyna rusticalis, Melliss, Saint Hel. 190 (1875).

Although probably only introduced into the island (for it occurs in Europe and is a common moth at Madeira), this *Meyna* is one of the most conspicuous of the St.-Helena Pyralidæ. It is abundant in the intermediate and lofty districts, particularly the former, while the bright orange of its underwings makes it quite a feature on the open grassy slopes, where it more especially resides. About Plantation and Oak-bank I observed it often in great profusion; but I did not meet with it, so far as I can now recall, at a very low elevation, though at Cleugh's Plain it was common enough; and I imagine therefore that it must be looked upon (whether naturalized or not) as belonging essentially to the intermediate altitudes.

The caterpillar of this moth is slightly over an inch in length and of an elongate fusiform shape, somewhat narrow in comparison with its length. The head is globular, but rather flattened in front. The segmental folds are distinct, though not conspicuously so, and with white longish erect hairs throughout the subdorsal region. The head is black, emitting a few short white hairs; the second segment is small and black, with three pale lines, the central one of which is continued throughout the segment (the others hardly extending to the middle) and adjoins a much broader dorsal stripe or space, which ornaments the rest of the segments to the anal angle (on which it appears as small spots). There is a narrow, yellowish-white, spiracle-line, adjoining the upper side of which is a row of bright yellow blotches. The space between the latter and the dorsal stripe is black, with three brighter black warts, each of which emits one of the white longish hairs which ornaments the sides.

Meyna polygonalis seems to have been much confused with *M. diversalis*, Hübn. The figures in the eighth volume

of Duponchel's 'Histoire Naturelle des Lépidoptères ou Papillons de France' (pl. 220) are quite identical with my St.-Helena examples; and one of my specimens even approaches rather near in colour to his figure of *M. diversalis* in the same volume (pl. 233); but there is more black on the hind wings of the St.-Helena one.

Genus 27. SCOPULA, Schr.

Scopula ferrugalis, Hübn.

I did not meet with this little moth at St. Helena; but since Mr. Walker identified it from amongst the material which was collected in the island by Mr. Melliss, I can scarcely do otherwise than admit it into the present catalogue. I am bound, however, to add that I cannot but feel it doubtful whether Mr. Walker, who does not always appear to have been precise in his determinations, may not have mistaken one of the smaller specimens of the following rather inconstant species for *S. ferrugalis*; however, the two insects are most thoroughly and permanently distinct. *S. ferrugalis* occurs in Europe, and is exceedingly abundant in Madeira; I have also received specimens of it from North Africa, collected there by the late Mr. Trovey Blackmore.

Scopula delineatalis.

Scopula delineatalis, Walk. in Melliss's Saint Hel. 189 (1875).

This is a most universal insect in the intermediate districts of St. Helena, occurring at about the altitudes of Plantation and Oakbank almost everywhere, and ascending up to the highest parts of the central ridge. In fields and on open grassy slopes it is often extremely common, starting into flight in the daytime as one passes its locality. But the particular spot in which I met with it in the greatest profusion is a little ravine between Oakbank and Hutt's Gate, and below Halley's Mount, called Vine-Tree Gut, where sometimes it was in great abundance, flying over the curious *Lachanodes prenanthiflora* (or "she cabbage tree"), which grows plentifully in that particular ravine.

Genus 28. PRIONAPTERYX, Steph.

Prionapteryx Whiteheadii, E. Woll.

Expanse 4-5 lines. With the fore wings of a dull whitish hue and having numerous ill-defined longitudinal, brownish, somewhat powdered streaks. There are two transverse indistinct lines, the first one of which is near to the middle, very

much pointed exteriorly just below the costa, and continued obliquely to the inner margin (where it becomes more suffused and patch-like); whilst the second one (which is better defined) is angulated in the same way below the costa, and almost joins (anteriorly) a conspicuous brownish spot on the inner margin. The extreme tip of the apex is white, truncated by a straight narrow black line. Hind wings pale smoky glossy white, the outer margin having a black line at the apical angle. Thorax concolorous with the anterior wings; body similar in hue to the posterior ones.

This extremely small *Prionapteryx* (which Professor Zeller observes is the smallest known to him) does not appear to be common; indeed, judging from my own observations, it is decidedly rare, the very few examples which I obtained having been met with at West Lodge, immediately beyond the house. It was about the foliage of the common white *Brugmansia*, or "moon plant," that I captured my specimens; but whether the habitat was merely an accidental one I am unable (not having observed the larva) to say. I have dedicated the species to the Rev. H. Whitehead of Woodcot, from whom we received much kindness and valuable assistance during our six months' residence at St. Helena.

Genus 29. NEPHOPTERYX, Hell.

Nephoteryx privata.

Nephoteryx privata, Walk. in Melliss's Saint Hel. 190 (1875).

This single little representative of the Phycidæ appears to be decidedly a scarce moth at St. Helena, and one which occurs (so far, indeed, as I am able to judge from the capture of merely two individuals) at intermediate altitudes. One of my examples was taken at Plantation, and the other from an old gumwood between Peak Dale and Lufkins; and I think it far from unlikely, therefore, that the species belongs properly to the now fast disappearing gumwood fauna. If so, we may expect it to be found more abundantly in the few spots where those curious and interesting trees are still left; and the probability that the Plantation district was once well supplied with gumwoods, is rather in accordance with this supposition.

Fam. VI. Tortricidæ.

Genus 30. STEGANOPTYCHA, Steph.

Steganoptycha obscura, E. Woll.

Expanse 7-7½ lines. With the fore wings of a somewhat

variable mottled brown, some specimens being much paler and more suffused than others. The basal portion is of a darkish brown to about a third of the length of the wing, followed by a pale almost fascia-like space. The ocellated spot near the anal angle (which often forms one of the most distinct features in many of the Tortricidæ) is only just discernible, and contains two very small black longitudinal lines; adjoining it, near to the inner margin, is a conspicuous small dark triangular patch, also containing a black streak. The costa itself is variegated with minute white and brown alternate streaks, which are more particularly conspicuous towards the apex, the last white line being circular, and thus causing the actual apex to appear as a somewhat rounded small brown spot. Hind wings pale smoky brown. Thorax concolorous with the anterior wings; body of the same hue as the posterior ones. The female is altogether paler, the fore wings having the basal portion, except towards the inner margin, quite as pale as the fascia. Nevertheless, as I only possess two examples (a male and a female), I cannot feel sure that these colour-distinctions will prove after all to be permanent.

The only examples of this obscure little Tortrix which I obtained were captured at Cleugh's Plain; so that it is probably a species of intermediate altitudes, though perhaps descending rather lower than many which have what I would define as an "intermediate" range. At first sight it has much the appearance of many ordinary European forms; and Mr. Barrett informs me that it is closely allied to the common British *Spilonota dealbana*, Fröl.

Genus 31. CHOREUTIS, Hübn.

Choreutis Bjerkandrella, Thunb.

This is a very pretty little species, the dark-brown but variegated surface of the anterior wings (which have three black blotches exteriorly and two ochreous longitudinal dashes at their extreme base, and two somewhat powdered and diffused cinereous transverse fasciæ) being elegantly besprinkled with small metallic spots or *fascicles* of scales. These scales vary greatly in lustre, being more often of a pinkish opal, but occasionally (particularly towards the base of the costa) of an emerald-green.

Choreutis Bjerkandrella is decidedly a rather scarce moth at St. Helena, and one which appears to be confined to intermediate or rather lofty altitudes. I met with it at Plantation and Cleugh's Plain sparingly, but more frequently at

West Lodge. It was chiefly from the foliage of the common bramble that I obtained it.

Mr. Barrett, who has kindly examined it, says that very likely this *may* be the var. *petrosana*; and indeed it agrees very well with Duponchel's figure of the latter on his sixty-fifth plate.

[To be continued.]

XXXVIII.—*Contributions to our Knowledge of the Spongida.*

By H. J. CARTER, F.R.S. &c.

[Plates XXVIII. & XXIX.]

[Continued from p. 304.]

Trachycladus levispirulifer, n. gen. et sp.
(Pl. XXVIII. figs. 1-5.)

Shrub-like, more or less compressed, stiff, consisting of a short irregularly round stem dividing at first dichotomously and then polychotomously into many branches, which terminate in digitations, more or less united laterally (Pl. XXVIII. fig. 1). Colour white on the surface, whitish yellow internally. Texture hard, dense. Surface reticulate, honeycomb-like, stiff, with small scopuliform processes along the lines of the reticulation, bearing a white incrustation composed of the flesh-spicules of the species. Internal structure of the stem and branches consisting of dense, compact, areolar sarcode, especially towards the centre, charged with the spicules of the species, expanding in lines from the axis of the branch upwards and outwards, so as to end in the little scopuliform processes mentioned. Spicules of three forms (viz. one skeleton- and two flesh-spicules):—1, skeleton-spicule, acerate, curved, smooth, pointed gradually, acutely or obtusely, sometimes acute, 1-85th by 1-2400th inch in its greatest dimensions (fig. 2); 2, flesh-spicule, minute, filiform or vermiculate, consisting of an open spiral coil of one turn and half, smooth (that is, without spines), 1-1714th inch long (fig. 3); 3, flesh-spicule, bacillar, consisting of a short, thick, cylindrical, straight shaft, with rounded ends and narrow, linear, central inflation (fig. 4). The skeleton-spicules mixed with a few flesh-spicules of both forms are confined to the interior, while the white incrustation is exclusively formed of the flesh-spicules. Size of largest specimen $4 \times 3 \times 1\frac{1}{4}$ inches; stem about 1 inch long and $\frac{3}{4}$ inch thick.

Hab. Marine.

Loc. South Australia